

IN THE CLAIMS

1. (withdrawn) A method for determining the location of a tumor margin comprising:

measuring a first electrophysiological characteristic of an area of tissue to be removed;

measuring a second electrophysiological characteristic of an area of normal tissue; and

determining the location of a tumor margin based on the difference in the first electrophysiological characteristic of the area of tissue to be removed and the second electrophysiological characteristic of the area of normal tissue.

2. (withdrawn) The method of claim 1, wherein the first electrophysiological characteristic and the second electrophysiological characteristic is an impedance of the tissue.

3. (withdrawn) The method of claim 1, wherein the first electrophysiological characteristic and the second electrophysiological characteristic is the DC potential of the tissue.

4. (withdrawn) The method of claim 1, further including introducing at least one agent into the area of tissue to be removed and the area of normal tissue.

5. (withdrawn) The method of claim 1, wherein the area of normal tissue is adjacent to the area of tissue to be removed.

6. (withdrawn) A method for determining the location of a tumor margin comprising:

measuring a first plurality of electrophysiological characteristics of an area of tissue to be removed at a first location;

measuring a second plurality of electrophysiological characteristics of an area of normal tissue at a second location; and

determining the location of a tumor margin based on the difference in first and second pluralities of electrophysiological characteristics.

7. (withdrawn) The method of claim 6, wherein the first and second pluralities of electrophysiological characteristics are the impedance and DC potential of the tissue.

8. (withdrawn) The method of claim 6, wherein the first and second plurality of electrophysiological characteristics are used to generate a electrophysiological profile of an area of tissue to be removed and the area of normal tissue.

9. (withdrawn) . The method of claim 6, further including introducing at least one agent into the area of tissue to be removed.

10. (withdrawn) An apparatus for determining the location of a tumor margin comprising:

a first electrode for measuring a first electrophysiological characteristic of an area of tissue to be removed;

a second electrode for measuring a second electrophysiological characteristic of an area of normal tissue; and

a device operative to determine the difference between the first and second electrophysiological characteristics.

11. (withdrawn) The apparatus of claim 10, wherein the area of normal tissue is adjacent to the area of tissue to be removed

12. (withdrawn) The apparatus of claim 10, wherein the first and second electrodes are on the same member.

13. (withdrawn) An apparatus for determining an area of tissue to be removed from a body comprising:

a first electrode for measuring a first electrophysiological characteristic of an area of tissue to be removed;

a second electrode for measuring a second electrophysiological characteristic of an area of normal tissue;

a device operative to display the first and second electrophysiological characteristics.

14. (withdrawn) The apparatus of claim 13, wherein the first and second electrodes form portions of a member.

15. (withdrawn) The apparatus of claim 13, wherein the first and second electrodes are on an endoscope.

16. (withdrawn) The apparatus of claim 13, wherein the first and second electrodes are on a biopsy device.

17. (withdrawn) The apparatus of claim 14, wherein the member is a flexible tube.

18. (withdrawn) The apparatus of claim 14, wherein the member is a flexible substantially flat material.

19. (withdrawn) An apparatus for determining an area of tissue to be removed comprising:

a first electrode for measuring a first electrophysiological characteristic of an area of tissue to be removed;

a second electrode for measuring a second electrophysiological characteristic of an area of normal tissue;

a first device operative to display the first electrophysiological characteristic; and

a second device operative to display the second electrophysiological characteristic.

20. (withdrawn) The apparatus of claim 19, wherein the first device operative to display the first electrophysiological characteristic and the second device operative to display the second electrophysiological characteristic are in a single housing.

21. (withdrawn) A computer-readable medium having computer-executable instructions for performing a method comprising:

measuring an electrophysiological characteristic of an area of tissue to be removed from an area of normal tissue;

determining the location of a resection margin between the area of tissue to be removed and the area of normal tissue based on the difference in the electrophysiological characteristic of the area of tissue to be removed from known values of the electrophysiological characteristic of normal tissue.

22. (withdrawn) A computer-readable medium having computer-executable instructions for performing a method comprising:

measuring a first electrophysiological characteristic of an area of tissue to be removed;

measuring a second electrophysiological characteristic of an area of normal tissue; and

determining the location a margin between the area of tissue to be removed and the area of normal tissue based on the difference in the first electrophysiological characteristic of the area of tissue to be removed and the second electrophysiological characteristic area of normal tissue.

23. (withdrawn) The computer-readable medium of claim 22, wherein the first electrophysiological characteristic and the second electrophysiological characteristic is the impedance of the tissue.

24. (withdrawn) The computer-readable medium of claim 22, wherein the first electrophysiological characteristic and the second electrophysiological characteristic is the DC potential of the tissue.

25. (withdrawn) The computer-readable medium of claim 22, further comprising introducing at least one agent into the area of tissue to be removed and the area of normal tissue.

26. (withdrawn) A method for determining the resection margin of an area of tissue comprising:

measuring a plurality of electrophysiological characteristics of an area of tissue to be removed from an area of normal tissue; and

determining the location of a resection margin between the area of tissue to be removed and the area or normal tissue based on the difference in the electrophysiological characteristics of the area of tissue to be removed and known electrophysiological characteristics of normal tissue.

27. (withdrawn) The method of claim 26, wherein the plurality of electrophysiological characteristics are impedance and DC potential.

28. (withdrawn) The method of claim 26, wherein the plurality of electrophysiological characteristics are measurements of impedance taken from at least two locations within the area of tissue to be removed from an area of normal tissue.

29. (withdrawn) The method of claim 26, wherein the plurality of electrophysiological characteristics are used to

produce an electrophysiological profile of the area of tissue to be removed from an area of normal tissue.

30. (withdrawn) The method of claim 29, wherein the electrophysiological profile is displayed on a monitor.

31. (withdrawn) A method for facilitating the removal of an area of tissue comprising:

measuring the electrophysiological characteristic of the area of tissue to be removed;

comparing the electrophysiological characteristic of the area of tissue to be removed to the electrophysiological characteristic of an area of normal tissue; and

determining the location of the area of tissue to be removed based on the comparison between the first electrophysiological characteristic of the area of tissue to be removed and the electrophysiological characteristic of an area of normal tissue.

32. (previously presented) A method for determining the efficacy of a form of medical treatment comprising:

measuring a first transepithelial electrophysiological characteristic of an area of tissue to be treated;

applying a treatment to the area of tissue to be treated;

measuring a second transepithelial electrophysiological characteristic of the area of tissue to be treated;

comparing the first and second electrophysiological characteristics; and

determining the efficacy of the medical treatment based on the comparison between the first and second electrophysiological characteristics.

33. (original) The method of claim 32, wherein the form of treatment is selected from the group of treatments consisting of ablation therapy, radiation therapy, cryotherapy, and drug therapy.

34. (previously presented) A method for determining the efficacy of a form of medical treatment comprising:

applying a treatment to an area of tissue;
measuring a transepithelial electrophysiological characteristic of the area of tissue;
comparing the transepithelial electrophysiological characteristic of the area of tissue to predetermined values;
determining the efficacy of the medical treatment based on the comparison between the transepithelial electrophysiological characteristic and predetermined values.

35. (previously presented) A method for determining the efficacy of a form of medical treatment comprising:

applying a treatment to the area of tissue to be treated;
measuring a first transepithelial electrophysiological characteristic of the area of treated tissue;
measuring a second transepithelial electrophysiological characteristic of a second area of tissue;
comparing the first and second transepithelial electrophysiological characteristics; and
determining the efficacy of the medical treatment based on the comparison between the first and second transepithelial electrophysiological characteristics.

36. (original) The method of claim 35, wherein the second area of tissue is normal tissue.

37. (original) The method of claim 35, wherein the second area of tissue is adjacent to the area of tissue to be treated tissue.

38. (original) The method of claim 35, further comprising introducing an agent into the area of tissue to be treated.

39. (previously presented) An apparatus for determining the efficacy of a form of treatment comprising:

a first electrode for measuring a first transepithelial electrophysiological characteristic of an area of tissue to be treated;

a second electrode for measuring a second transepithelial electrophysiological characteristic of an area of normal tissue;

a first device operative to display the first transepithelial electrophysiological characteristic; and

a second device operative to display the second transepithelial electrophysiological characteristic.

40. (previously presented) An apparatus for determining the efficacy of a form of treatment comprising:

a first electrode for measuring a first transepithelial electrophysiological characteristic of an area of tissue to be treated;

a second electrode for measuring a second transepithelial electrophysiological characteristic of an area of normal tissue;

a device operative to determine the difference between the first and second transepithelial electrophysiological characteristics.

41. (previously presented) A computer-readable medium having computer-executable instructions for performing a method for determining the efficacy of a form of treatment comprising:

applying a treatment to an area of tissue;

measuring a transepithelial electrophysiological characteristic of the area of tissue;

comparing the electrophysiological characteristic of the area of tissue to a transepithelial electrophysiological characteristic of normal tissue; and

determining the efficacy of the medical treatment based on the comparison between the transepithelial electrophysiological characteristic of the area of tissue and the transepithelial electrophysiological characteristic of normal tissue.

42. (new) A method for determining the efficacy of a form of medical treatment comprising:

measuring a first transepithelial electrophysiological characteristic of an area of tissue to be treated;

measuring a first transepithelial electrophysiological characteristic of a second area of tissue;

applying a treatment to the area of tissue to be treated;

measuring a second transepithelial electrophysiological characteristic of the area of tissue to be treated;

measuring a second transepithelial electrophysiological characteristic of the second area of tissue;

comparing the first and second electrophysiological characteristics of the area of tissue to be treated and the second area of tissue; and

determining the efficacy of the medical treatment based on a comparison between the first and second electrophysiological characteristics of the area of tissue to be treated and the first and second electrophysiological characteristics of the second area of tissue.

43. (new) The method of claim 42, wherein the form of treatment is selected from the group of treatments consisting of ablation therapy, radiation therapy, cryotherapy, and drug therapy.

44. (new) The method of claim 42, wherein the second area of tissue is normal tissue.

45. (new) The method of claim 42, wherein the second area of tissue is adjacent to the area of tissue to be treated.